



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,595	10/01/2001	Mitsutoshi Hasegawa	35.C11922 DI	5655

5514 7590 09/17/2003

FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

CLEVELAND, MICHAEL B

ART UNIT PAPER NUMBER

1762

DATE MAILED: 09/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/966,595	Applicant(s) HASEGAWA, MITSUTOSHI	
	Examiner Michael Cleveland	Art Unit 1762	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 41-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s). <u>14</u> |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)               |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

### DETAILED ACTION

The Office Action mailed 8/14/2003 was premature because Applicant requested a three-month suspension along with the request for continued examination filed 6/9/2003. In a telephone interview with attorney Frank DeLucia on 9/16/2003, the examiner confirmed that action should have been suspended for 3 months, until 9/9/2003. The application is now ripe for examination, and Applicant has not filed further papers since 6/9/2003. Accordingly, this action is substantially identical to that mailed 8/14/2003. Applicant's shortened statutory response period has been reset to be 3 months from the mailing of this communication.

#### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/9/2003 has been entered.

#### *Drawings/Specification*

2. The corrected or substitute drawings were received on 6/9/2003. These drawings are accepted.

#### *Claim Interpretation*

3. The term "an alien substrate" in new claims 48 and 52 appears to be a mistranslation of "a foreign substance" (compare analogous claim 44). For purposes of examination, the claims were so treated. However, the Examiner recommends changing the language to clarify the claims.

#### *Double Patenting*

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

Art Unit: 1762

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 41-52 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. 6,309,691 (which evolved from the parent application) in view of Schadeli et al. (U.S. Patent 5,879,855, hereafter '855).

Claims 41, 45, and 49: Claim 13 of '691 teaches applying a liquid to the substrate by an ink jet system (col. 22, lines 61-63) and detecting a defective area (i.e., an abnormality) in the applied liquid (col. 23, lines 1-4), the liquid comprising a precursor (i.e., raw material) of an electroconductive film (col. 22, lines 61-62), the electroconductive film being arranged to be disposed between electrodes on the substrate and having an electron emitting portion (col. 22, lines 56-59), the method comprising the steps of:

applying the liquid to the substrate by the ink jet system (col. 22, lines 61-63);

forming a precursor of the electroconductive film by drying and heating the applied liquid (col. 23, lines 1-4); and

detecting the abnormality by examining the precursor of the electroconductive film.

The claim does not expressly state that the ink-jet comprises a solvent, and that the drying and heating evaporates the solvent. However, it is extremely well known for ink jet inks to contain solvents (See, for example, '855, col. 44, lines 28-35), and the phrase "drying and heating" reasonably suggests evaporation of such a solvent. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a solvent-containing ink as the particular ink of '691 with the expectation of similar results and with a reasonable expectation of success because solvent-containing inks are of such notoriously well known character to be instantly envisioned by a practitioner of ordinary skill in the art (particularly given the guidance in the claim of "drying and heating" the ink).

Claims 42-44, 46-48, 50-52: The claims are interpreted in light of the specification, and the specification reveals that defective areas include those in improper position, with improper shapes, or with foreign objects (col. 12, lines 47-54).

6. Claims 41, 43, 45, 47, 49, and 51 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 42 and 44-48 of copending Application No. 09/864,407 in view of Schadeli et al. (U.S. Patent 5,879,855, hereafter '855). Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 42 and 45 of '407 are more specific than present claims 41 and 45 except that present claims 41 and 45 recite that the ink contains a solvent.

Claims 42 and 45 of '407 do not expressly state that the ink-jet comprises a solvent, and that the drying and heating evaporates the solvent. However, it is extremely well known for ink jet inks to contain solvents (See, for example, '855, col. 44, lines 28-35), and the phrase "drying and heating" reasonably suggests evaporation of such a solvent. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a solvent-containing ink as the particular ink of '691 with the expectation of similar results and with a reasonable expectation of success because solvent-containing inks are of such notoriously well known character to be instantly envisioned by a practitioner of ordinary skill in the art (particularly given the guidance in the claim of "drying and heating" the ink).

Present claim 49 is rejected for combining features of both claims 45 and 47 of '804 and for the reasons relating to a solvent discussed above.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### ***Response to Arguments***

7. Applicant's arguments filed 6/9/2003 have been fully considered but they are not persuasive.

Art Unit: 1762

Applicant's argues that the reasons claims 41-44 are patentable over '691 were given at pp. 6-9 of the response filed 3/25/2002. The argument is unconvincing because those remarks are drawn to Banno '113, not Hasegawa '691.

Applicant argues that the double patenting rejections are improper because there can be no timewise extension are not convincing for the reasons given by MPEP 804.03.VI, which states in part:

First, 35 U.S.C. 154(b) includes provisions for patent term extension based upon prosecution delays during the application process. Thus, 35 U.S.C. 154 does not ensure that any patent issuing on a continuing utility or plant application filed on or after June 8, 1995 will necessarily expire 20 years from the earliest filing date for which a benefit is claimed under 35 U.S.C. 120, 121, or 365(c). Second, 37 CFR 1.321(c)(3) requires that a terminal disclaimer filed to obviate a judicially created double patenting rejection include a provision that any patent granted on that application be enforceable only for and during the period that the patent is commonly owned with the application or patent which formed the basis for the rejection. This requirement serves to avoid the potential for harassment of an accused infringer by multiple parties with patents covering the same patentable invention (37 CFR 1.601(n)). See, e.g., *In re Van Ornum*, 686 F.2d 937, 944-48, 214 USPQ 761, 767-70 (CCPA 1982). Not insisting upon a terminal disclaimer to overcome a judicially created double patenting rejection in an application subject to a 20-year term under 35 U.S.C. 154(a)(2) would result in the potential for the problem that 37 CFR 1.321(c)(3) was promulgated to avoid.

Applicant argues that the Examiner has not explained how Schadel is applied. Schadel was cited as evidence that it is extremely well known for ink jet inks to contain solvents (The Examiner has more clearly indicated above that the reference to col. 44, lines 28-35 discussed in the prior Office Action was a reference to Schadel '855.)

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cleveland whose telephone number is (703) 308-2331. The examiner can normally be reached on 9-5:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-3186 for regular communications and (703) 306-3186 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Application/Control Number: 09/966,595

Page 6

Art Unit: 1762

A handwritten signature in black ink, appearing to read "Michael Cleveland". The signature is stylized with a large, looped "M" and a cursive "Cleveland".

Michael Cleveland

Patent Examiner

September 16, 2003